In The Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any canceled claims at a later date.

1. (currently amended) A method for producing monocrystalline structures, components or workpieces on substrates, comprising:

providing epitaxial growth of an epitaxial layer;

melting a surface of the component by an energy input of an energy source by a ~~focal spot~~ focused length of the energy source ~~the focal spot~~ having a substantially linear, elliptical or rectangular geometry;

advancing the focused length in a single continuous movement in a z direction only;

controlling a temperature of the focused length of the energy source by an optical system to determine when a next epitaxial layer is to be formed;

feeding material to the molten area; and

melting the fed material completely, whereby the molten material is introduced into the monocrystalline structure to solidify.

2. (previously presented) The method as claimed in claim 1, wherein the energy input takes place by a laser.

3. (previously presented) The method as claimed in claim 1, wherein the energy input takes place by electron beams.

4. (currently amended) The method as claimed in claim 1, wherein the ~~focal spot~~ focused length produces a molten area with a substantially linear, elliptical or rectangular geometry.

5. (currently amended) The method as claimed in claim 1, wherein the size of the ~~focal spot~~ focused length is changed during operation.

6. (currently amended) The method as claimed in claim 1, wherein the ~~focal spot~~ focused length has profile ends, and the intensity of the energy input is increased at the profile ends as compared with the middle area of the ~~focal spot~~ focused length.

7. (currently amended) The method as claimed in claim 1, wherein the feed of material takes place by at least one material feed, and the material feed is varied in terms of time and location.

8. (currently amended) The method as claimed in claim ~~1~~ 15, wherein the temperature of the ~~focal spot~~ focused length of the energy source is controlled by an optical system.

9. (currently amended) The method as claimed in claim 1, further comprising:

moving the ~~focal spot~~ focused length over the substrate in a direction of advancement wherein the substrate has an area to which material is added; and

adapting the ~~focal spot~~ focused length to the geometry of the area such that a width of the ~~focal spot~~ focused length is adapted to the width of the area transversely in relation to the direction of advancement.

10. (canceled)

11. (previously presented) The method as claimed in claim 1, wherein the monocrystalline structures, components or workpieces are produced from metal superalloys.

12. (currently amended) The method as claimed in claim 2, further comprising:

moving the ~~focal spot~~ focused length over the substrate in a direction of advancement wherein the substrate has an area to which material is added; and

adapting the ~~focal spot~~ focused length to the geometry of the area such that a width of the ~~focal spot~~ focused length is adapted to the width of the area transversely in relation to the direction of advancement.

13. (currently amended) The method as claimed in claim 3, further comprising:

moving the ~~focal spot~~ focused length over the substrate in a direction of advancement wherein the substrate has an area to which material is added; and

adapting the ~~focal spot~~ focused length to the geometry of the area such that a width of the ~~focal spot~~ focused length is adapted to the width of the area transversely in relation to the direction of advancement.

14. (previously presented) The method as claimed in claim 1, wherein the substrate having a monocrystalline structure or monocrystalline structures.

15. (currently amended) A method for producing monocrystalline structures, components or workpieces on substrates comprising:

providing epitaxial growth;

melting a surface of the component by an energy input of an energy source by a ~~focal spot~~ focused length of the energy source the ~~focal spot~~ focused length having a substantially linear, elliptical or rectangular geometry;

controlling a power intensity in a central area of the focused length of the energy source such that the power intensity remains constant in the focused length;

feeding material to ~~the~~ a molten area; and

melting the fed material with the surface, whereby the molten material is introduced into the monocrystalline structure to solidify.

16. (previously presented) The method as claimed in claim 15, wherein the energy input takes place by a laser.

17. (previously presented) The method as claimed in claim 15, wherein the energy input takes place by electron beams.

18. (currently amended) The method as claimed in claim 15, wherein the ~~focal spot~~ focused length produces a molten area with a substantially linear, elliptical or rectangular geometry.

19. (previously presented) The method as claimed in claim 15, wherein the monocrystalline structures, components or workpieces are produced from metal superalloys.

20. (previously presented) The method as claimed in claim 15, wherein the substrate having a monocrystalline structure or monocrystalline structures.

21. (new) The method as claimed in claim 15, wherein the focused length is adapted to the width of the filling area so that a complete pass over a surface to be treated takes place in a single continuous advancing movement.

22. (new) The method as claimed in claim 1, wherein the optical system views the surface area to be treated.